

PUBLIC HEALTH FACT SHEET

Viral Hemorrhagic Fevers (VHFs)

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What are viral hemorrhagic fevers?

Viral hemorrhagic fevers (VHFs) are a group of illnesses that are caused by several different types viruses (germs). While some hemorrhagic fever viruses can cause relatively mild illnesses, many VHFs cause severe, life threatening disease. VHFs include Ebola, Marburg, Lassa fever, dengue fever and others. VHFs are very uncommon in the United States, including Massachusetts.

How are viral hemorrhagic fevers spread?

Transmission (spread) of VHFs varies by type of virus. For most VHFs, the virus is spread when people come in contact with an infected animal, such as rodents (rats and mice), mosquitoes or ticks. Some VHFs can also be spread from person to person. This can be done by direct contact with the infected person or their body fluids. In some cases, breathing in droplets that have been coughed into the air can spread VHFs. Some VHFs can be spread through people coming in contact with objects that have been contaminated with the virus, for example, bedding or medical equipment that has not been cleaned properly.

Can viral hemorrhagic fever viruses be used for bioterrorism?

Yes. Bioterrorism is the use of any biological organism to hurt people or create fear. The Centers for Disease Control and Prevention lists some viral hemorrhagic fever viruses as possible bioterrorist agents.

What are the symptoms?

Specific symptoms depend on the virus, but they can include fever, fatigue, dizziness, muscle aches, loss of strength and exhaustion. In more severe cases symptoms may include bleeding under the skin, in internal organs or from the mouth, eyes or ears. Severely ill patients may show signs of shock, nervous system malfunctions, coma, delirium (confusion, speech problems) and seizures.

How soon after exposure do symptoms appear?

Symptoms usually appear 1 to 21 days after exposure to a VHF virus, depending on the specific virus.

How are viral hemorrhagic fevers diagnosed?

Diagnosis of VHF is made by laboratory tests that look for the germ in various specimens such as blood and spinal fluid. These are not routine tests and are only done at a few specific laboratories, so a health care provider must make special arrangements.

How are viral hemorrhagic fevers treated?

Patients with VHFs receive supportive care, such as fluids and breathing aids, but there is no other treatment or cure for VHFs. Medications have been used with several of the viruses, but their effectiveness is not known.

Is there a vaccine for viral hemorrhagic fevers?

Yellow fever is the only VHF for which there is a vaccine; no other VHF has a vaccine available.

How can viral hemorrhagic fevers be prevented?

In general, your risk of getting sick when traveling outside the United States depends on the area you visit. Travelers to less economically developed countries are generally at greater risk than those traveling to developed areas. In most developed countries, such as Canada, Japan, Australia, New Zealand and the European nations, the risk to your health is about the same as that in the United States. In Africa, South and Central America, and the Middle and Far East, the risk for viral hemorrhagic fevers may be higher. Avoid traveling to areas with known outbreaks of viral hemorrhagic fevers. Check travel advisories issued by the CDC (website below).

Some general measures for the prevention of many illnesses, including VHF's, when traveling outside the United States include the following:

- Immunize with yellow fever vaccine, if indicated
- Use appropriate insect repellent
- Wear proper clothing to cover your skin
- Use bed nets where appropriate
- Avoid rodents and rodent droppings
- Follow any viral hemorrhagic fever advisories

For more information regarding international travel and viral hemorrhagic fevers, contact the Centers for Disease Control and Prevention (CDC), Travelers Health Office at (877) 394-8747 or through the internet at <http://www.cdc.gov/travel>.

Where can I get more information?

- Your health care provider, nurse or clinic
- The Centers for Disease Control and Prevention (CDC) website at: <http://www.bt.cdc.gov/>
- Your local board of health (listed in the telephone directory under "government")
- The Massachusetts Department of Public Health (MDPH), Division of Epidemiology and Immunization at (617) 983-6800 or toll free at (888) 658-2850 or on the MDPH Website at <http://www.mass.gov/dph>

January 2003